

PHASE I

Environmental Site Assessment (ESA)

An Environmental Professionals Perspective



Brownfields Tools for Redevelopment
Workshop

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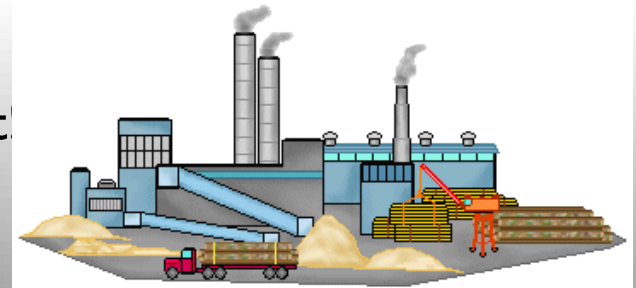
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GSI Properties At Risk

Engineering

- Any site can be contaminated, but there are a few sites that usually require closer inspection:

1. Gas stations
2. Dry cleaners
3. Industrial sites
4. Auto repair and body shops
5. Electronics manufacturers
6. Printing facilities
7. Nurseries.....not where babies are kept
8. Even agricultural land



Phase I ESA

Phase I ESA is a primary component of Environmental Due Diligence, which is defined as:

“The care a reasonable person should take before entering into a property agreement or transaction with another party”,

Phase I ESA

Performed under responsible charge of
Environmental Professional

Environmental Professional-Defined by AAI

- Hold PE or PG and three years relevant experience
- Other government issued license or certification to perform “All Appropriate Inquires” and three years of relevant experience
- Bachelor of Science or higher in engineering or science and five years relevant experience
- Ten years relevant experience

Phase I ESA Objective



Identify recognized environmental conditions (RECs) in connection with the property

Develop conclusions regarding REC impact to assessment Site



REC Definition

“The presence or likely presence of any hazardous substances or petroleum products in, on, or at a property:

- Due to any release to the environment;
- Under conditions indicative of a release to the environment;
- Under conditions that pose a material threat of a future release to the environment.”

Material Threat of
Future Release



HREC Definition

“A past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority, without subjecting the property to any required controls (e.g., property use restrictions, AULs, IC’s, or EC’s)”.

Before calling the past release an HREC, the EP must determine whether the past release is a REC at the time the Phase I ESA is conducted (e.g., if there has been a change in the regulatory criteria). If the EP considers this past release to be a REC at the time the Phase I ESA is conducted, the condition shall be included in the conclusions section of the report as a REC.”

CREC DEFINITION

Controlled Recognized Environmental Condition:

“A REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (e.g., as evidenced by the issuance of a NFA letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (e.g., property use restrictions, AULs, institutional controls, or engineering controls)...a CREC shall be listed in the Findings Section of the Phase I ESA report, and as a REC in the Conclusions Section of the...report.”

The background of the slide is a photograph of a grassy field with several white survey markers. A blue barrel is visible in the middle ground. The image is slightly faded to allow the text to be read clearly.

NO FURTHER ACTION?



Phase I Environmental Site Assessment Components

FOUR COMPONENTS TO PHASE I ESA

- Records Review – Regulatory Agencies, Property Use/Zoning, Historical, Deed and Title
- Site Reconnaissance – A visit to the property
- Interviews – Report User, Owner/Occupants, Government Officials
- Evaluation and Reporting of Data

Collaborative Effort

- EP, User, owner/occupant work together to solve the puzzle.
- Each component forms a piece of the puzzle.
- Roles of all participants are important to success.



What's is included?

- **Research** into past ownership and uses
- **Review** of reasonably ascertainable and practically reviewable historical and environmental records
- **Interviews** with report user, past and present owners, and occupants
- **Visual inspection of the site**
- Recognized Environmental Condition(s)-REC
- Historical Recognized Condition(s)-HREC
- Controlled Recognized Environmental Condition(s)-CREC



Role of the EP

- ESA must be conducted by EP or performed under responsible charge of EP.
- EP is responsible for record review, site reconnaissance, and interviews with User, Owner/Occupant, and local regulatory agencies.
- Interpretation of information upon which the report is based is performed by the EP.
- Conclusions and Recommendations





Role of the Report User (Client)

- Report known environmental liens, engineering controls, and activity and use limitations (AUL) information that may be recorded against the assessment site property.
- Disclose commonly known information and discrepancies with purchase price and full market value.
- Provide pertinent deed and title information compiled by them or provided to them by the property owner or owner agent.
- Communicate commonly known or reasonably ascertainable information relative to RECs in connection with the property.
- Communicate the purpose of the ESA (property transaction, lease, etc.)

Role of Property Owner/Occupant

- Disclose previous environmental investigations, ESA, or reports relative to the Property
- Disclose environmental permits (for example, waste water discharge permits, NPDES permits, hazardous waste records, UIC permits) associated with the Property.
- Disclose Community right-to-know, Safety, SPCC, or facility response plans required for facility compliance operations.
- Disclose any pending, threatened, or past litigation or notices of violation of environmental laws or possibly environmental liability associated with the Property.

Findings & Opinions

- Known or suspected RECs
- CRECS
- HRECs
- De Minimis conditions



Basis for development of conclusions relative to identified RECs potentially affecting the property.



NO RECs, no further investigation (Our work is done)

EP's professional opinion may be a factor, such as;

- An HREC reported in findings section may not be a REC based on current conditions; (Removal of UST with no residual contamination)
- CREC, reported as REC in conclusions, but based on available data and professional opinion nor requiring further investigation. (Site with No Further Action (NFA) letter based on successful EUC implementation) Residual contamination documented and location clearly delineated.

REC IDENTIFIED, Phase II ESA (Intrusive Investigation)

REC not always readily apparent, and in most cases actual environmental impact can only be confirmed through sampling and analysis. REC examples may include these and many other observations;

- Historic or regulatory data review identifies property use with customary business practices or hazardous substance storage and use commonly resulting in release of hazardous substances to the environment.
- Visual or olfactory indication of current or past release to the environment.
- Interviews with persons familiar with the site provide strong evidence of illegal dumping or other on site disposal.
- Fill material from an unknown source, or stockpiling of soil and materials from unknown source.
- HREC (under certain conditions) and CRECs (may not warrant Phase II).

Phase II Components

Intrusive investigation potential included soil, groundwater, soil vapor and vapor intrusion sampling and analysis.

- Scope of work is based on Phase I Findings and Conclusions.
- Sampling locations and sample media selected based on contaminants of concern and suspected location of release to the environment.
- Phase II data used to evaluate potential future use scenarios and develop remedial or clean-up plans for the property.

WHAT CAN WE TAKE AWAY?

1. Phase I Environmental Site Assessment is an important part of risk management, providing liability protections for the prospective landowner.
2. Not all RECs are readily apparent. Properties that “look good” may be contaminated and those that “look bad” may not be what they seem.
3. All components of the Phase I ESA must be as complete as reasonably possible, and share equal importance.
4. Development of meaningful and accurate Phase I ESA findings and conclusions considers many factors and is a collaborative effort between all parties involved.



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